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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,079	11/28/2000	Wilhelmus Hubertus Paulus Maria Heijnen	TS6196 (US)	5093

7590

07/10/2003

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EXAMINER

OMGBA, ESSAMA

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 07/10/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/724,079

Applicant(s)
Wilhelmus H. P. M. Heijnen

Examiner
Essama Omgba

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3726



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 14, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kozubovski et al.

(SU 1629463) in view of Gabor et al. (DE 3407467).

Kozubovski et al. discloses a method of connecting wellbore casing strings in deep wells, the method comprising arranging an end part 2 of one casing within an end part of another casing 10 and sealingly fastening the two casing by a concentric charge of explosive 12, see abstract.

Kozubovski et al. does not disclose arranging a sleeve of deformable material between the end parts so as to bias the sleeve between the end parts when radially expanding the end parts.

However Gabor et al. teaches such a sleeve of deformable material 5 arranged between end parts of two tubes (1, 2) wherein the end part of the inner tube is radially expanded towards the end part of the outer tube thereby biasing the sleeve 5 between the end parts, see abstract and figures 1 and 2. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have arranged a sleeve of deformable material between the end parts of the casings in Kozubovski et al.'s method, in light of the teachings of Gabor et al., in order to

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provide a more efficient sealing bond between the two wellbore casings. Applicant should note that Kozubovski et al.'s method is applicable to wellbore casings secured in formation.

3. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozubovski et al./Gabor et al. as applied to claim 1 above, and further in view of Kapgan et al. (US Patent 5,662,362).

With regards to claims 2 and 3, Kozubovski et al./Gabor et al. discloses a method of connecting upper and lower wellbore casings as shown above. Even though Kozubovski et al./Gabor et al. does not disclose the deformable sleeve as being a shape-memory alloy made of a hard elastomer or a ductile metal, such shape-memory alloy material are old and well known as attested by Kapgan et al., see column 1, lines 21-40. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a ductile shape-memory alloy in Kozubovski et al./Gabor et al.'s method, in light of the teachings of Kapgan et al., in order to ensure a leak free coupling of the casings.

For claim 4, Applicant should note that the use of two shape-memory sleeves arranged concentrically between the end parts is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in using a single sleeve as taught by Gabor et al. for instance versus using two sleeves as long as an effective leak free connection is established between the two wellbore casings.

For claim 5, see column 1, lines 21-24 of Kapgan et al.

For claims 6 and 7, see figures 1 and 2 of Gabor et al.

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4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kozubovski et al./Gabor et al./Kapgan et al. as applied to claim 7 above, and further in view of Feldstein et al. (US Patent 5,038,994) and Kozubovski et al. (SU 1629463).

Kozubovski et al./Gabor et al./Kapgan et al. discloses a method of connecting upper and lower wellbore casings as shown above except for the device comprising an annular shoulder for positioning the device against the end part of the lower wellbore casing and arranging the explosive charge in an annular recess. However Feldstein et al. teaches such an explosive device provided with an annular shoulder 9 for positioning the device against an end part of an inner pipe 5 to be radially expanded against an end part of a second pipe 1, see column 4, lines 5-14 and figure 2. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have substituted the device of Kozubovski et al./Gabor et al./Kapgan et al. with the device taught by Feldstein et al., in order to center the device and provide a predetermined stand-off between the two pipes. Applicant should note that Kozubovski et al. teaches the explosive charge 12 in an annular recess 3 of the device to ensure effective containment of the explosive charge within the device as illustrated in the figure.

Response to Arguments

5. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

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References

6. The prior art references listed on the enclosed PTO-892, but not used in a rejection of the claims, are pertinent to Applicant's disclosure.

Contact Information

7. Official documents related to the instant application may be submitted to the Technology Center 3700 mail center by facsimile at (703) 305-3579/3580. Should Applicant desire to submit a DRAFT response to the Examiner by facsimile transmission, then Applicant should contact the Examiner at the number below for instructions concerning the transmission of DRAFT documents. Applicant is reminded to clearly mark any facsimile transmission as "DRAFT" if it is not to be considered as an official response.

8. Any inquiry concerning this communication should be directed to Examiner Essama Omgba at telephone number (703) 305-2915.

Essama Omgba
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EO
July 2, 2003